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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/880,923	06/15/2001	Chul-min Kim	P56416	5673

7590

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EXAMINER

FLETCHER, JAMES A

ART UNIT

PAPER NUMBER

2621

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/880,923

Applicant(s)

KIM, CHUL-MIN

Examiner

James A. Fletcher

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-13 is/are allowed.
- 6) ☒ Claim(s) 1 and 14 is/are rejected.
- 7) ☒ Claim(s) 2-5 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sturm et al (5,260,800), and further in view of National Semiconductor (LM1881 datasheet).

**Regarding claims 1 and 14**, Sturm et al disclose a video signal processing circuit for use in a video recording/reproducing apparatus comprising:

- a video recording/reproducing processor for providing a video signal to be recorded on a storage medium and for reproducing a video signal recorded on the storage medium (Col 3, lines 8-9);
- a composite synchronization dividing unit for separating a composite synchronization signal from a video signal output by the video recording/reproducing processor (Col 7, lines 1-8);
- a quasi vertical synchronization inserting unit for inserting a quasi vertical synchronization signal in the video signal output from the video recording/reproducing processor (Col 3, lines 33-37);

- Sturm discloses the use of horizontal sync signals separately from vertical sync signals, and specifically suggests a sync separator circuit that has separate horizontal and vertical outputs (Col 4, lines 17-37), but does not specifically disclose a vertical synchronization dividing unit for separating a vertical synchronization signal from the composite synchronization signal.

National Semiconductor teaches a sync separator with separate horizontal and vertical outputs, providing signals that can be used for the various timing circuits in televisions and other video processing equipment, and as such is well known, commercially available, and widely used.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sturm et al in order to provide separate vertical sync signals.

- Sturm discloses the use of bidirectional ports (Col 12, lines 14-23), but does not specifically disclose a sync circuit with a bidirectional pin for separate use during recording and reproduction under the same control as that determining recording and reproduction.

The Examiner takes official notice that integration of features and processes into compact, multi-purpose devices is common practice, widely known, and commercially available.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Sturm et al in order to provide a single bidirectional sync signal pin.

***Allowable Subject Matter***

3. Claims 2-5 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art does not fairly disclose, teach, or suggest a bidirectional sync signal pin operating as an input port in special reproducing mode and as an output port in other modes.

4. Claims 6-13 are allowed.

The prior art does not fairly disclose, teach, or suggest a bidirectional sync signal pin on an integrated circuit operating as an input port in special reproducing mode and as an output port in other modes.

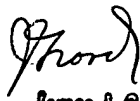
Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fletcher whose telephone number is (571) 272-7377. The examiner can normally be reached on 7:45-5:45 M-Th, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached on (571) 272-7950. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAF  
15 March 2006

  
**James J. Groody**  
**Supervisory Patent Examiner**  
**Art Unit 2616**